

From: Tom Mongan [\[mailto:tmongan@gmail.com\]](mailto:tmongan@gmail.com)  
Sent: Wednesday, February 16, 2011 5:10 PM  
To: Macaulay, Terry@DeltaCouncil  
Subject: Draft DSC report

Dear Ms. Macaulay,

I'm a native San Franciscan and an engineer who has worked on Delta issues for twenty years. I read the latest draft DSC report, and I salute the DSC for trying to face the real issues associated with the Delta. I've attached a one page assessment of the basic issues Californians must face when considering the Delta. i respectfully request that you distribute this summary to the members of the DSC.

Sincerely,

Dr. Thomas R. Mongan, P.E.  
Consulting engineer

## **A brutally realistic “engineering” view of the Delta**

The new draft DSC report seems to be actually saying something, as compared to previous political documents purporting to address Delta issues with a lot of words that really said nothing while trying to avoid offending anyone. I hope the DSC draft is a step towards facing Californians with what seem to me to be some inescapable realities regarding the Delta:

- The existing Delta is a totally artificial and unsustainable ecosystem dominated by non-native alien species.
- The Delta is certain to be drastically modified by continued erosion, rising sea level and/or a major earthquake, and Delta agriculture cannot be sustained in the long run.
- About 24 million Californians rely on the Delta for a large part of their water supply. This dependence on Delta water could be significantly reduced in two ways:
  1. Many of those 24 million people could move elsewhere. This seems unlikely.
  2. California could sharply reduce irrigated agriculture. This seems unwise in a world with growing competition for food and fiber from agriculture.
- The water supplying 24 million Californians now runs through the Delta, mixing with salty water from the Bay and wastewater from cities, farms and industries. This avoidable and deliberate pollution of the water supply is stupid on the face of it.
- To improve water quality and prepare for the certain collapse of existing Delta levees, we must build a canal around the Delta [or a tunnel under it, if feasible given the geologic conditions beneath the Delta]. It is unlikely to be cheaper or easier to do this in the future. If a major earthquake destroys the Delta levees before this is done, Californians dependent on Delta water will be *very* angry with those responsible for the safety and reliability of their water supply.
- Both law and common sense require us to protect native species, especially the endangered ones, while doing the necessary engineering modifications to the artificial Delta ecosystem. However, when doing that, we must face several realities:
  1. Central valley salmon abundance is predominantly controlled by ocean conditions, hatcheries, and upstream spawning habitat. It is little affected by water project operations.
  2. Delta smelt abundance is undoubtedly lower than in the past, probably because of reduced food availability. However, USGS research indicates the number of delta smelt present in recent years is much higher, and they are more widely distributed, than previously believed. So, the fraction of the delta smelt population entrained by the water projects has probably been wildly overestimated.
  3. There is no scientifically reliable evidence that Delta outflow, in and of itself, affects fish abundance. The limited data suggesting a relation between abundance of a few fish and Delta outflow is more likely to be related to lower pollution concentrations and increased food supplies in wet years.